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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,745	05/04/2001	George W. Cone	12749US02	2633

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EXAMINER

AWAD, AMR A

ART UNIT PAPER NUMBER

2675

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/849,745	Applicant(s) CONE ET AL.	
	Examiner Amr Awad	Art Unit 2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-19 is/are rejected.
- 7) ☒ Claim(s) 10 and 20-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/29/01</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references cited in the information disclosure statement received August 29, 2001 have been considered by the Examiner; see attached PTO-1449.

### ***Claim Objections***

2. Claim 1 objected to because of the following informalities: in line 3 of claim 1, the “,” after second should be deleted. Appropriate correction is required.

Claims 18 and 20 are objected to because of the following informalities: in line 3 of claim 18 and line 4 of claim 20, “the” before “switch” should be replaced with –a–. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-8, 11-13, 15 and 17 are rejected under 35 U.S.C. 102(a) as being anticipated by Jacobsen et al. (US patent NO. 6,073,034; hereinafter referred to as Jacobsen).

As to independent claim 1, Jacobson (figures 5A-5C, 8A-8E and 9J) teaches a portable communication device (telephone 222 in figure 8A or 280 in figure 9J) with a

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virtual image display (240 in figure 8B), comprising: a hand held frame having a first end (224) and a second opposite end (226); an earphone speaker (230) for projecting sound mounted in the first end of the frame; and a virtual image display system (238) including a display (240) and at least one optic (shown in figures 5A-5C representing the inside structure of the micro display described throughout the invention; see col. 9, line 62 through col. 10, line 3) through which a user looks to view an enlarged virtual image of information depicted on the display (col. 12, lines 47-67), the virtual image display system being mounted in the second end (226) of the frame wherein at least one of the earphone speaker (230) and the virtual image display system are mounted on the frame for movement to increase the distance between the earphone speaker and the optic through which the user looks to view the image when the device is in use (in Jacobson's device the display moves in closer to the speaker 230 or out away from the speaker) (col. 12, lines 59-67).

As to independent claim 11, the claim is substantially similar to independent claim 1 except that claim 11 recites that the virtual image display module being mounted on the second end of the frame for pivot movement between in-use position and a storage position in which the optic is covered by the back wall of the frame. As can be seen in figures 8A and 8B, Jacobson shows the in use position (figure 8A) and a storage position (figure 8B) in which optic is covered by the back wall of the frame (226) by pivoting the 226 portion of the frame (col. 12, lines 55-67).

As to independent claim 16, the claim is substantially similar to claim 1 except that claim 16 recites having a first aperture in the first end of in the first end and second

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aperture in a second opposite end, and wherein the earphone mounted on the frame in the first aperture for slidable movement between first and second earphone position, and the image display mounted on the frame in the second aperture for pivot movement between the first and second positions, and linkage connected between the virtual image display and the earphone. Considering figure 9J or 10A, and by assuming aperture as an opening, such as a hole, gap, or slit (Microsoft Bookshelf Basics Dictionary); Jacobson shows that the earphone moves into a gap (top of the keypad) between first and second position, and the display is also moving between two position into a gap, and a linkage (286) connecting the display and the earphone together (col. 13, lines 52-59).

As to claim 2, Jacobson shows that the earphone speaker is mounted on the frame for movement (see for example, figures 9J-11).

As to claim 3, Jacobson (figure 9J) shows that the earphone speaker is mounted on the frame for sliding movement (col. 13, lines 52-59).

As to claim 4, Jacobson shows that the virtual image display system is mounted for movement on the frame (figure 9J).

As to claim 5, Jacobson shows that the virtual image display system is mounted for pivotal movement on the frame (figure 9J).

As to claim 6, Jacobson shows that both the virtual image display system and the earphone speaker are mounted for movement on the frame (figure 9J).

As to claim 7, using the broadest reasonable interpretation of the claim, Jacobson (figures 8A-8B or 9J) fairly reads on the claimed limitation because moving

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the section 226 from the position in figure 8A to the position in figure 8B requires the movement of the section 224 through the pivot connecting the two section. Since the section 224 includes the speaker 230; then the speaker also moves when the display moves.

As to claim 8, Jacobson (figure 9J) shows both the speaker and the image display moving.

As to claim 12, as can be seen in figures 9J, Jacobson shows that the earphone speaker is movably mounted in the first end of the frame to increase the distance between the earphone speaker and the virtual image display module.

As to claim 13, considering figure 9J or 10A, and by assuming aperture as an opening, such as a hole, gap, or slit (Microsoft Bookshelf Basics Dictionary); Jacobson shows that the earphone moves into a gap (top of the keypad) between first and second position, and the display is also moving between two position into a gap, and a linkage (286) connecting the display and the earphone together (col. 13, lines 52-59).

As to claim 15, it is inherent that Jacobson has a wire (electric connection) to connect the display to the battery to provide power to the display.

As to claim 17, Jacobson shows that the linkage includes a pair of elongated members, each having a first end coupled to the earphone module and having a second end coupled to the virtual mage display module such that the second end of each elongated member is pulled in a direction generally away from the first aperture as the virtual image display module is moved from a first, extended position to the second,

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storage position to slide the earphone from a first, extended position to a second, storage position (col. 13, lines 52-59).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9, 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson in view of Budd et al. (US patent NO. 6,360,104; hereinafter referred to as Budd).

As to independent claim 19, as can be seen above with respect to claim 1, Jacobson teaches all the limitation of claim 19 except the limitations of having a switch being moved from the right position to the left position to invert the image depicted on the display so that the top the image changes.

However, Budd (figures 1-7) teaches a wireless handset phone with a virtual image display coupled to the wireless handset phone (abstract), wherein a switch is activated to change the orientation of the image on the display (col. 3, lines 18-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Budd having an orientation switch to changing the orientation of the image on the image display based on the location of the phone to be incorporated to Jacobson's device so as motivated by Budd,

to accommodate each individual based on the preference of each individuals (col. 3, lines 25-30). Furthermore, changing the orientation is essential in such device to allow the user holding the phone with the right hand or the left hand to correctly see the images, or even when the phone is placed on a surface, so as to make the phone user friendly. Having the orientation changed by moving a switch to the right or to the left is obvious in view of Budd because the reference stated an orientation switch, which means any switch capable of changing the orientation can be applied to the device.

As to claim 9, Jacobson teaches all the limitation of claim 9 except the limitations of having a switch being moved from the right position to the left position to invert the image depicted on the display so that the top the image changes.

However, Budd (figures 1-7) teaches a wireless handset phone with a virtual image display coupled to the wireless handset phone (abstract), wherein a switch is activated to change the orientation of the image on the display (col. 3, lines 18-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Budd having an orientation switch to changing the orientation of the image on the image display based on the location of the phone to be incorporated to Jacobson's device so as motivated by Budd, to accommodate each individual based on the preference of each individuals (col. 3, lines 25-30). Furthermore, changing the orientation is essential in such device to allow the user holding the phone with the right hand or the left hand to correctly see the images, or even when the phone is placed on a surface, so as to make the phone user friendly. Having the orientation changed by moving a switch to the right or to the left is



obvious in view of Budd because the reference stated an orientation switch, which means any switch capable of changing the orientation can be applied to the device.

As to claim 14, Jacobson teaches all the limitation of claim 14 except the limitations of having a switch being moved from the right position to the left position to invert the image depicted on the display so that the top the image changes.

However, Budd (figures 1-7) teaches a wireless handset phone with a virtual image display coupled to the wireless handset phone (abstract), wherein a switch is activated to change the orientation of the image on the display (col. 3, lines 18-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Budd having an orientation switch to changing the orientation of the image on the image display based on the location of the phone to be incorporated to Jacobson's device so as motivated by Budd, to accommodate each individual based on the preference of each individuals (col. 3, lines 25-30). Furthermore, changing the orientation is essential in such device to allow the user holding the phone with the right hand or the left hand to correctly see the images, or even when the phone is placed on a surface, so as to make the phone user friendly. Having the orientation changed by moving a switch to the right or to the left is obvious in view of Budd because the reference stated an orientation switch, which means any switch capable of changing the orientation can be applied to the device.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson in view of Kintz et al. (US patent NO. 6,275,714; hereinafter referred to as Kintz).

As can be seen above with respect to claim 16, Jacobson teaches all the limitations of claim 18 except the citation of having a controller responsive to the position of a switch to invert the image depicted on the display so that it accommodates the user using the right eye or the left eye.

However, Kintz (figures 2 and 3A-3C) shows a video phone wherein a switch is used to change the orientation of the images on the display to accommodate the user using the right eye and the user using the left eyes (col. 3, line 60 through col. 4, line 15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Kintz changing the orientation of the displayed images to be incorporated to Jacobson's device so as motivated by Kintz, to accommodate both users using the right or left hand (col. 2, lines 13-19), which makes the device user friendly.

***Allowable Subject Matter***

8. Claims 10 and 20-24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Enokido et al. (US patent NO. 5,461,672) teaches a portable radio telephone having a slidable speaker unit.

Lee et al. (US patent NO. 6,137,525) teaches a personal data communication apparatus with an optical display unit.

Charlier et al. (US patent NO. 6,334,063) teaches an electronic device with auto-positioning virtual image display.

Gale et al. (US patent NO. 6,452,577) teaches a micro-display viewer on a portable phone.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703)308-8485. The examiner can normally be reached on Monday through Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703)305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. A



AMR A. AWAD  
PRIMARY EXAMINER

9-17-2004